Best Tools for immunology Research

BRCA1 (ABT159R) rabbit mAb

Catalog No :	YM7021
Reactivity :	Human;
Applications :	IHC; ELISA
Target :	BRCA1
Fields :	>>Platinum drug resistance;>>Homologous recombination;>>Fanconi anemia pathway;>>Ubiquitin mediated proteolysis;>>PI3K-Akt signaling pathway;>>MicroRNAs in cancer;>>Breast cancer
Gene Name :	BRCA1
Protein Name :	Breast cancer type 1 susceptibility protein
Human Gene Id :	672
Human Swiss Prot No :	P38398
Mouse Swiss Prot No :	P48754
Immunogen :	The antiserum was produced against synthesized peptide derived from human BRCA1. AA range:450-550
Specificity :	This antibody detects endogenous levels of BRCA1
Formulation :	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source :	Monoclonal, Rabbit IgG1, Kappa
Dilution :	IHC 1:100-500, ELISA 1:5000-20000
Purification :	Recombinant Expression and Affinity purified
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Molecularweight :	208kD

Cell Pathway : Ubiquitin mediated proteolysis;

Background : This gene encodes a nuclear phosphoprotein that plays a role in maintaining genomic stability, and it also acts as a tumor suppressor. The encoded protein combines with other tumor suppressors, DNA damage sensors, and signal transducers to form a large multi-subunit protein complex known as the BRCA1-associated genome surveillance complex (BASC). This gene product associates with RNA polymerase II, and through the C-terminal domain, also interacts with histone deacetylase complexes. This protein thus plays a role in transcription, DNA repair of double-stranded breaks, and recombination. Mutations in this gene are responsible for approximately 40% of inherited breast cancers and more than 80% of inherited breast and ovarian cancers. Alternative splicing plays a role in modulating the subcellular localization and physiological function of this gene. Many alternatively spliced transcript varian

Function : disease:Defects in BRCA1 are a cause of genetic susceptibility to breast cancer (BC) [MIM:113705, 114480]. BC is an extremely common malignancy, affecting one in eight women during their lifetime. A positive family history has been identified as major contributor to risk of development of the disease, and this link is striking for early-onset breast cancer. Mutations in BRCA1 are thought to be responsible for 45% of inherited breast cancer. Moreover, BRCA1 carriers have a 4-fold increased risk of colon cancer, whereas male carriers face a 3-fold increased risk of prostate cancer. Cells lacking BRCA1 show defects in DNA repair by homologous recombination.,disease:Defects in BRCA1 are a cause of genetic susceptibility to ovarian cancer [MIM:113705].,disease:Defects in BRCA1 are a cause of susceptibility to familial breast-ovarian cancer type 1 (BROVCA1) [MIM:604370]. Mutations in BRCA1 are

Subcellular Location : Nucleus . Chromosome . Cytoplasm . Localizes at sites of DNA damage at double-strand breaks (DSBs); recruitment to DNA damage sites is mediated by ABRAXAS1 and the BRCA1-A complex (PubMed:26778126). Translocated to the cytoplasm during UV-induced apoptosis (PubMed:20160719). .; [Isoform 3]: Cytoplasm.; [Isoform 5]: Cytoplasm .

Expression : Isoform 1 and isoform 3 are widely expressed. Isoform 3 is reduced or absent in several breast and ovarian cancer cell lines.

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